

WHAT IS CLAIMED IS:

1. A system for the forming and filling of flexible plastic-material containers, including sterilizable bags, with solutions for the administration of infusion type solutions, comprising the steps of:
 - printing of a film wound off a supplying reel;
 - dry cleaning the printed film;
 - gimbal aligning of the film for folding thereof;
 - hot-bar longitudinal welding of the folded film to create a bag;
 - applying a valve to the film using a control algorithm to control the speed and position of a welding head during the welding head's approach to an anvil, wherein a cavity of the valve has been subjected to humidification;
 - shaping the bag using hot tools controlled by an algorithm; and,
 - supplying a high precision dosage of a filling liquid to the bag.
2. The system of Claim 1, wherein the hot-bar longitudinal welding of the film creates a vertical seal.
3. The system of Claim 1, wherein the cavities of the valve are subjected to humidification, outside the bag and without contact with the filling solution, by a means to dose the liquid a function of a volume of the cavity, and further comprising tools to ascertain the wetting taking place such that the cavity of the valve is sterilized in times and with procedures substantially equal to those of the bag sterilization.
4. The system of Claim 3, wherein the wetting is effected downstream from a vibrator associated with feeding the valves for welding onto the bag, and wherein a means for controlling the wetting of the cavities of the valves is located downstream from the tools used for effecting a wetting.
5. The system of Claim 3, wherein a liquid used for wetting is chosen from the group consisting of distilled water, physiological solutions and hydrogen peroxide.

6. The system of Claim 5, wherein hydrogen peroxide is used to sanitize and detect electric conductability in the cavities.

7. The system of Claim 1, wherein the humidification is supplied by an apparatus that includes a source of sterile liquid, a dosing valve, and a flusstate, outside a means that includes a nozzle that is moved by a double-effect piston controlled by a sensor, and that is supplied with a lance for penetration into the valve cavities, the discharged sterile liquid being detected by a circuit with electric bridging.

8. The system of Claim 1, wherein the total print on the film is made with a hot printer that uses a hot press as an impression means, the printer depositing onto the bag, due to a pigmented film, the characters put on a cliché.

9. The system of Claim 1, wherein the film is dry cleaned with purified air and, after accumulation, undergoes a gimballed alignment.

10. The system of Claim 8, wherein the film is dry cleaned with purified air and, after accumulation, undergoes a gimballed alignment.

11. The system of Claim 8, wherein a suspension ring is welded onto the bag.

12. The system of Claim 8, wherein a suspension hole is made in the bag.

13. The system of Claim 1, wherein the liquid filling the bag is precisely dosed in a station that includes in the inlet a contribution regulation valve, a constant pressure valve, and a turbine flowmeter, that feeds the valve with true and proper washing of the solution inside the bag prior to the bag being welded transversely, the valve having a double electropneumatic boost and the control being carried out by impulses coming from a lobed flowmeter having a Hall effect.

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14. The system of Claim 1, wherein contemporaneous shaping at a transversal welding of the bag is carried out with mobile bars heated by electric resistances of high output having a plurality of temperature control points, and cooling effected by mobile cold bars that cool and block the folding process of the welding, and wherein the cold bars contain means for cutting and separating the bags.

15. The system of Claim 14, wherein the blocking of the valve welding is accomplished with a position transducer, a cylinder, a slide, a sonotrode and a piezoelectric transducer.

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